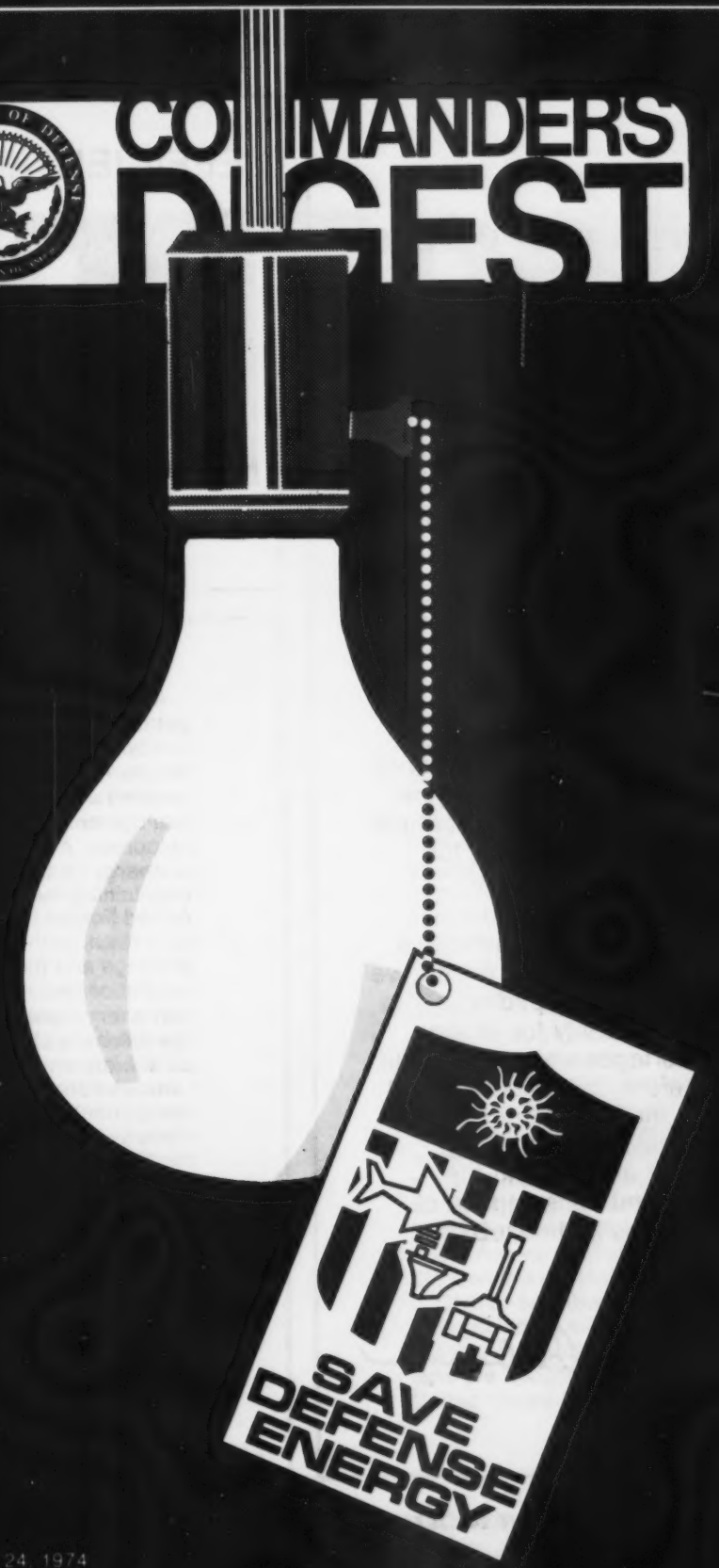
COMMANDER'S DIGEST



VOL. 16, NO. 17 OCTOBER 24, 1974

THE SECRETARY OF DEFENSE
WASHINGTON

MEMORANDUM FOR Assistant Secretary of Defense (Installations & Logistics)

SUBJECT: Management of Defense Energy Resources—Phase II

Based on my review of your Phase II Report on Management of Defense Energy Resources, I believe we should proceed with implementation of the recommendations contained therein. Please take action in your capacity as Chairman of the Defense Energy Policy Council to issue the necessary implementing memoranda and to establish target dates for progress reviews.

Although the acute petroleum shortages which we experienced a few months ago have been eased, we should move ahead expeditiously to improve our capability for dealing with such shortages which may occur again. Therefore, it is essential that we maintain the momentum which has been developed in moving toward greater efficiency in the management and consumption of energy resources in the DoD.

James R. Schlesinger

EFFICIENT MANAGEMENT & DEFEN

BY REAR ADMIRAL N. SONENSHEIN, USN,

Although the shortage of petroleum and petroleum products has been alleviated at least temporarily, energy conservation remains at the forefront in the management of Defense energy resources. Awareness of the value of energy in all its forms for maintaining the readiness of our Armed Forces has been heightened as a result of the recent acute shortage and the resultant escalation in cost. While the fact that energy underpins military operations is clearly evident today as aircraft, ships and ground vehicles carry out their assignments, it was also recognized many years ago in the adage that the "infantry travels on its stomach." While the fueling of a modern aircraft represents an entirely different scale than feeding a soldier, lack of fueling produces the same results. Thus, while the Department of Defense (DoD) must conserve energy wherever possible, it cannot let preoccupation with conservation reduce operational readiness. Very simply

CONSERVATION OF

SE ENERGY

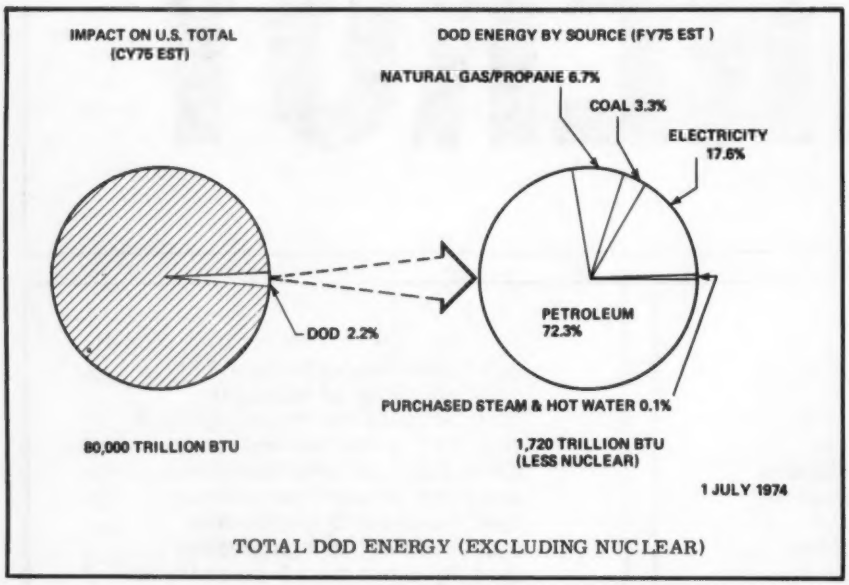
DIRECTOR FOR ENERGY

stated, the problem in managing Defense energy resources is to assure we can procure the large quantities of energy needed to support essential Defense missions and that it is in the right place at the right time.

The petroleum embargo of last fall and the rapid increases in the price of crude oil and refined products have had a significant impact on DoD energy management. The Defense Production Act was implemented in November 1973 to ensure that fuel requirements could be met. Later, the Mandatory Allocation Program served as the instrument for guaranteeing adequate supplies of fuel. Without the allocation program and the Defense Production Act, DoD would have been unable to obtain requisite amounts of petroleum products in light of severe supply shortages in the open market. Many fuel suppliers were not willing to bid on DoD orders because they were able to sell their available stocks at a premium price to commercial buyers.

A similar supply problem has been encountered with coal procurement since the spring of this year. With utility conversions to lower sulfur oil halted temporarily, and many oil users switching to coal, the demand for coal has exceeded near-term production capacity. Since there is presently no allocation program for coal, DoD has had severe problems in purchasing sufficient coal to meet its needs in competition with the utilities and heavy industry. The competition exists largely because these large consumers cannot get enough gas or oil and are going back to coal where environmental regulations permit. To make matters worse, some mines have closed. As a result, military coal costs have almost tripled, and in some locations coal cannot be had at any price. Annual DoD requirements in the Continental United States (CONUS) are about two million tons, including 400,000 tons used in Alaska. In addition, almost 700,000 tons are bought annually in the United States for military

". . .I call on each of you . . .to join . . .in a great effort to become inflation fighters and energy savers. "



TOTAL DOD ENERGY (EXCLUDING NUCLEAR)

installations in Europe. The U.S. coal industry produces some 600 million tons per year, of which military consumption represents less than half of one per cent.

Adding to the existing coal supply problems, the shortage of natural gas for this year's heating season is now apparent. The impact of present and prospective curtailments of natural gas service on Defense installations is being studied at this time.

In order to place the Department of Defense total energy consumption in proper context, it is useful to compare it with the total national energy consumption level. The DoD consumes only 2.2 per cent of all the energy used in the United States, and petroleum accounts for nearly 75 per cent of that amount. Electricity accounts for about 17.6 per cent of the total, and most of it is purchased from public utilities. Gas and coal are 6.7 and 3.3 per cent of the total, respectively.

How does DoD use this energy? Aircraft operations account for the largest share, almost 45 per cent. Installations consume 39 per cent, and ship operations between 11 and 12 per cent. Finally, ground operations use nearly 5 per cent of the total amount of energy consumed by DoD. In petroleum energy, aircraft operations account for close to two-thirds of the total DoD usage.

During fiscal year 1974, military petroleum consumption averaged about 571,000 barrels per day, the lowest level since fiscal year 1955. This rate of consumption represented 3.4 per cent of the U.S. total, down from 4.3 per cent in the previous year. While FY 74 fuel was constrained to an unprecedented degree by the embargo and other factors, it is anticipated that FY 75 consumption will be constrained by budgetary factors to the FY 74 levels—about 575,000.

Energy Cost and DoD Budget

The impact of price has been the most important long-range consequence of the events which have taken place during recent months. More than any other factor, price may serve to dampen demands for energy in DoD and in the economy as a whole. As a result of escalating prices, DoD had to request a supplement of over $500 million to the FY 74 budget.

GERALD R. FORD

President of the United States

In FY 75 about $4 billion will be required for military energy, representing nearly 5 per cent of the DoD budget. Thus, the cost of energy is now a major factor in the DoD budget.

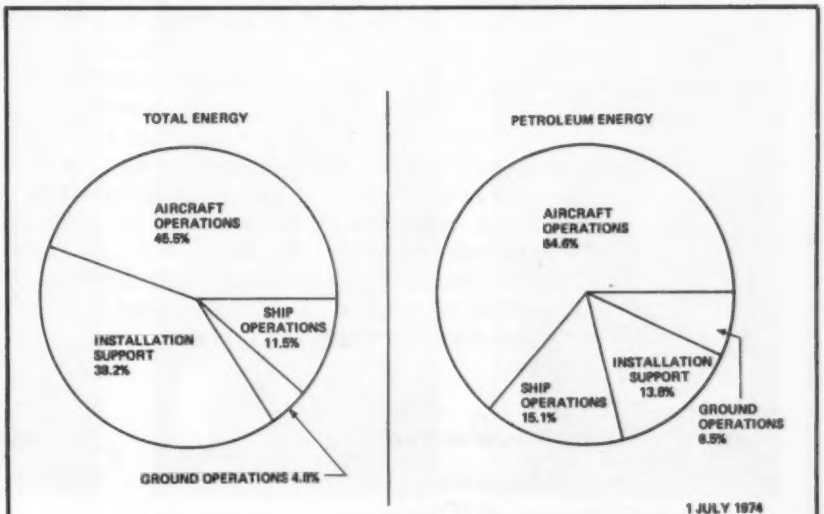
The DoD has taken a number of measures to address energy supply and price problems:

- A Directorate for Energy and a Defense Energy Policy Council in the Office of the Secretary of Defense (OSD) supported by the Energy Action Group was established to manage Defense energy resources and to coordinate DoD actions to meet energy supply problems as well as to work with the Federal Energy Administration (FEA), and other agencies concerned with energy policies.
- DoD-recommended modifications have been made to the Federal Allocation Program to ease military petroleum supply problems.
- A Joint Chiefs of Staff (JCS) review of war reserves was carried out and concluded that dependence of overseas forces on foreign fuel supplies should be reduced.
- A major DoD energy conservation effort has been undertaken with the theme "Save Defense Energy." Through dedicated efforts at the OSD and Service levels, DoD leads all other Federal departments and agencies in reduction of energy consumption.
- A Defense Energy Information System (DEIS) has been established to facilitate effective management control and visibility of available DoD energy resources throughout the world.
- Energy Research and Development (R&D) planning is being integrated with the national effort through the FEA Project Independence activities and the National Energy R&D Program.

DoD Energy Organization

A Defense Energy Task Group (DETG) was created in September 1973 to determine the structure of an organization and to analyze the energy-related issues inherent in the DoD mission. The Task Group

(Continued on page 8)



ESTIMATED FY75 DOD ENERGY DEMAND (BY OPERATIONAL FUNCTION)

Department of Defense

ENERGY CONSERVATION AWARD

To the

United States Air Force

for achievement
in the
Defense Energy Conservation Program
Fy 1974

THROUGH ITS EXCEPTIONAL CONTRIBUTION TO THE DEFENSE ENERGY CONSERVATION PROGRAM. RESPONDING TO THE PRESIDENT'S CALL FOR A NATIONAL EFFORT TO REDUCE ENERGY CONSUMPTION, AND TO LOWER GOVERNMENT USE OF ENERGY BY AT LEAST SEVEN PERCENT IN FISCAL YEAR 1974, THE DEPARTMENT OF DEFENSE ACHIEVED THE LARGEST OVER-ALL REDUCTION OF ANY GOVERNMENT AGENCY. THE UNITED STATES AIR FORCE, THROUGH THE ENTHUSIASTIC COOPERATION OF ITS MILITARY AND CIVILIAN PERSONNEL, WAS INSTRUMENTAL IN THAT ACHIEVEMENT, REDUCING ITS ENERGY CONSUMPTION IN FISCAL YEAR 1974 BY TWENTY-SEVEN PERCENT FROM THE PRECEDING YEAR, WITHOUT ADVERSELY AFFECTING MILITARY READINESS. THROUGH ITS CONTINUING OUTSTANDING CONSERVATION EFFORTS, THE UNITED STATES AIR FORCE HAS MADE A SIGNIFICANT CONTRI-BUTION TO PROJECT INDEPENDENCE AND ESTABLISHED AN EXAMPLE FOR THE NATION TO FOLLOW IN ITS ENDEAVORS TO REDUCE DEPENDENCE ON INSECURE FOREIGN ENERGY SOURCES.

A. I. Mendolia

Arthur I. Mendolia
Assistant Secretary of Defense
Installations & Logistics

James R. Schlesinger

James R. Schlesinger
Secretary of Defense

Energy Savers Cited

Each of the four Services received special energy conservation awards during the conservation seminar held October 10-11 at Hampton, Virginia. Air Force received the highest honors with 27 per cent reduction in energy consumption, followed closely by the Navy and Marines with 24 per cent reduction and the Army with 19 per cent. The seminars were designed to improve efficiency in the management and consumption of energy within the Department of Defense.

ARTHUR I. MENDOLIA
Assistant Secretary of Defense
(Installations & Logistics)

MAJ. GEN. JONAS L. BLANK
DCS/Supply & Logistics
Headquarters, USAF

RADM PAUL PECK
DCS/Reserve & Readiness
CINCLANTFLT

BG ADOLPH G. SCHWENCK
Director of Facilities & Services
Headquarters, USMC

BG J. C. McWHORTER
Director of Transportation & Services
Headquarters USA

RADM N. SONENSHEIN, U.S. Navy, Director for Energy

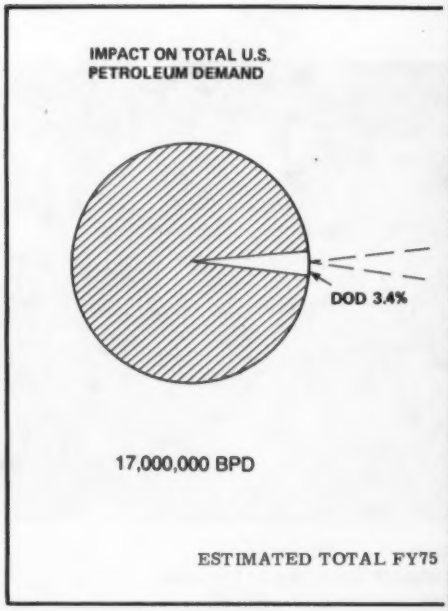
(Continued from page 5)

issued its initial report in November 1973 which recommended the composition of a DoD energy management organization and information systems to support it. The DoD energy management organization evolving from the task group recommendation is structured to enhance the capabilities of DoD decision makers in managing the many facets of Defense energy requirements. The Assistant Secretary of Defense (Installations and Logistics) is the principal energy executive in DoD. Directly under him is the Director of Energy who also receives guidance from the Defense Energy Policy Council which is chaired by the Assistant Secretary of Defense (Installations and Logistics). The Director for Energy serves as the program manager for DoD energy matters.

An Energy Action Group, representing the key elements of the Office of the Secretary of Defense, the Organization of the Joint Chiefs of Staff and the Military Services, assists the Director for Energy who chairs this group. Functional responsibilities in the Directorate for Energy are delegated to four principal assistants.

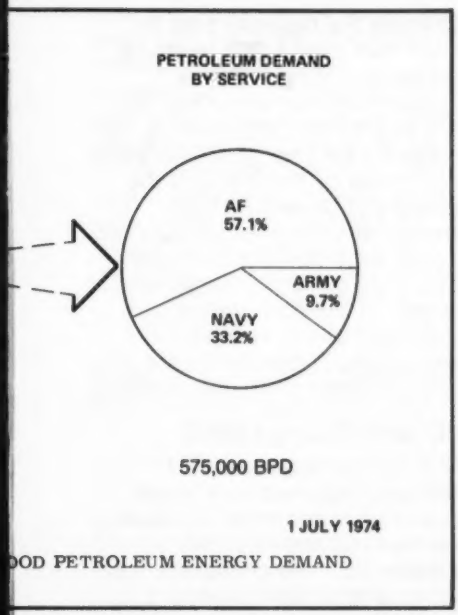
Management of Defense Energy Resources Phase II Report

Reexamining the accomplishments of DoD energy management and developments impacting thereon since the publication of the Defense Energy Task Group (DETG) report last fall, the Directorate for Energy's Phase II Report, *Management of Defense Energy Resources,* summarizes progress made in carrying out the DETG recommendations and analyzes the evolving character of the DoD energy management problem. It examines the current directions of DoD energy policy and makes new recommendations in selected energy management areas. The Phase II objectives were to assess the status of the DETG recommendations, evaluate the impact of events since November 1973, and to define the Defense energy management plan for FY 75.



Energy Availability

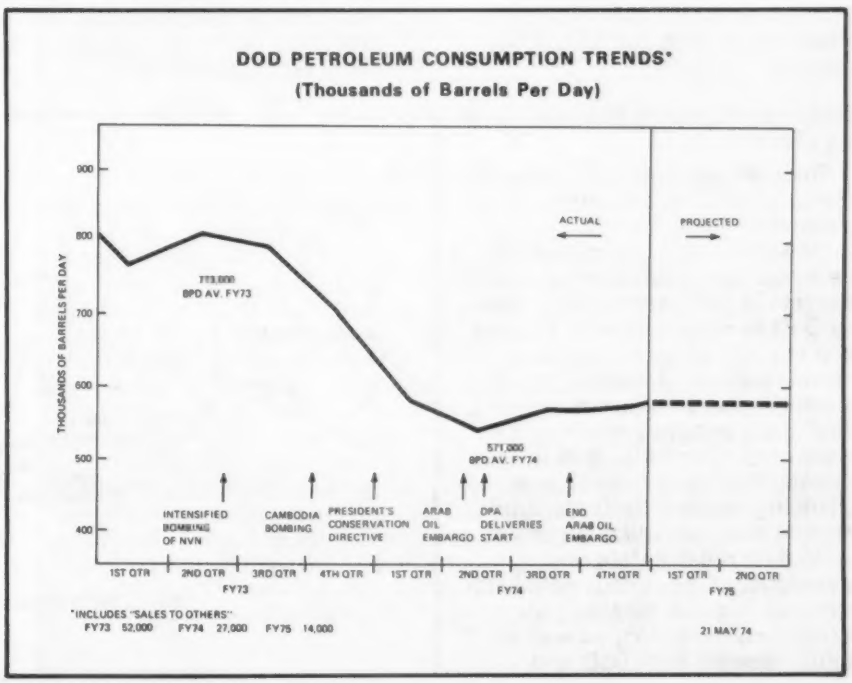
Recognition of the energy situation, forcefully illustrated by the oil embargo, has had indirect effects on the DoD, in addition to direct impacts on the procurement of energy. For instance, the Congress has appropriated $59 million for the exploration and development of Naval Petroleum Reserves (NPR) No. 1 and No. 4, which, like all our Naval Petroleum Reserves, may only be

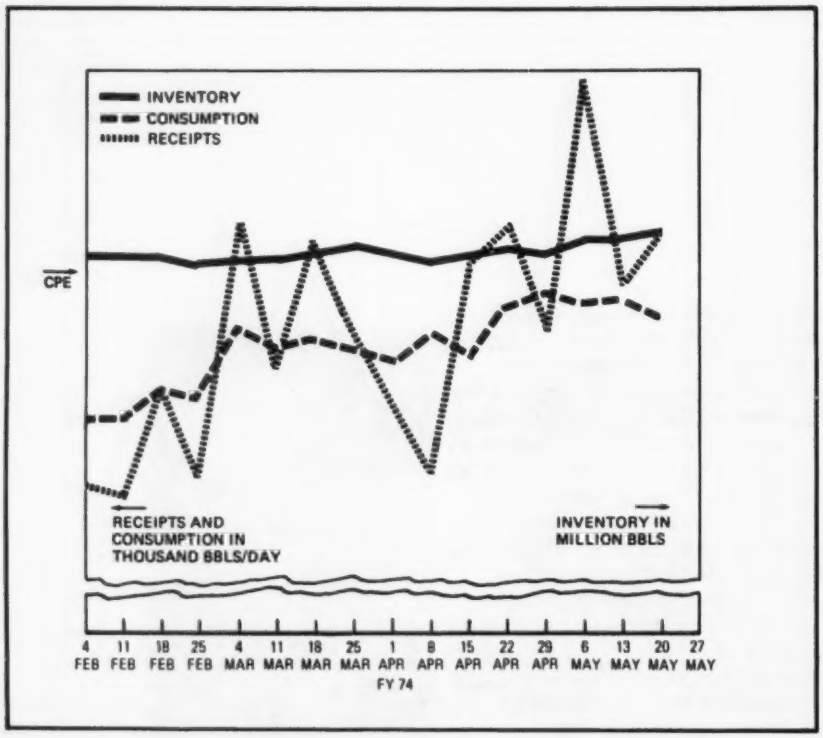


used for national defense purposes when authorized by the Congress. Seismographic surveys are now underway in NPR No. 4, and development drilling is progressing in Alaska in NPR No. 1 in California.

In addition to improving the two principal Naval Petroleum Reserves, the potential of the three Naval Oil Shale Reserves (NOSR) in Colorado and Utah is being evaluated in cooperation with private industry and the Department of the Interior. In one project, the Navy is supplying 400,000 tons of oil shale from NOSR No. 1 at Anvil Points in Colorado to a contractor who is operating a demonstration plant for the Department of the Interior. The Research and Development (R&D) activities of other agencies and industry in the extraction of crude oil from oil shale is being monitored to insure that the Navy will be ready to apply the best options to development of the NOSR.

During the most severe period of the Arab oil embargo, DoD was reduced to 10 to 15 per cent of its overseas daily supply compared to almost 50 per cent before the embargo. This caused a disruption of normal DoD fuel distribution patterns by the shifting emphasis to Continental United States (CONUS) as the principal source of petroleum products. Changes in tanker routes and repositioning of tankers, resulted in consequent delays in deliveries to overseas installations. The situation was exacerbated further by the refusal of some foreign countries to sell petroleum products to U.S. forces stationed in those countries or to allow storage of petroleum for U.S. forces in foreign-owned tanks. This experience emphasized a need for the DoD to re-examine its petroleum




INVENTORY
CONSUMPTION
RECEIPTS
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RECEIPTS AND CONSUMPTION IN THOUSAND BBLS/DAY
INVENTORY IN MILLION BBLS
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FY 74

Utilizing the reported data in DEIS-I from over 1,300 reporting activities including 168 bulk petroleum storage terminals, 510 ships and military installations, the Directorate for Energy derives basic data for use by the Office of the Secretary of Defense (OSD) management. Weekly inventory and average daily consumption and receipts are plotted for all petroleum products to illustrate trends on a worldwide basis over a period of many weeks. These trends are also plotted for each petroleum product.

DoD and Energy R&D

DoD will not engage in R&D activities or approach problems where civilian agencies or industry have the lead and required expertise, but it will encourage such work as a potential beneficiary. Coal liquification, which is of keen interest to military consumers, typifies such a relationship. A good example is the liquified coal product derived from the Department of Interior pilot plant in Princeton, New Jersey. Similarly, DoD is prepared to provide family housing units as test platforms for solar heating and cooling demonstration projects. The military R&D program will be

storage facilities to cope with peacetime supply interruptions while maintaining a sufficient war reserve.

Defense Energy Information System

The Defense Energy Information System (DEIS-I), inaugurated in December 1973, provides worldwide energy information for near real time data covering all aspects of petroleum energy used by DoD from procurement through end use. Other forms of energy used in support of installations (e.g. electricity, natural gas and propane, coal and purchased steam and hot water) are reported in DEIS-II. This system, flexible to support ever changing needs of DoD managers, permits easy and quick access to up-to-date reliable data on inventories of the various petroleum products in stock, weekly and monthly consumption, as well as actual receipts from DoD and contract sources. Recently expanded, DEIS-I also includes information on distribution (e.g. petroleum products in transit).

NAVAL PETROLEUM AND OIL SHALE RESERVES

concentrated in those areas promising the most direct payoff in improving specific fuel consumption, such as in aircraft and ship operations; and in developing conservation techniques for use in installations and buildings. Such approaches as total energy systems in five-year facility investment programs are now under active consideration by a Facility Planning Panel under the aegis of the Defense Energy Action Group.

Energy Conservation and the Federal Government

In June 1973, the President launched a Federal program to reduce energy consumption, and shortly thereafter an Office of Energy Conservation was created in the Department of the Interior to coordinate all Federal and private efforts to meet the objectives set by the President. This program had as a goal a seven per cent energy saving by all Federal agencies. In the case of DoD petroleum fuels, this seven per cent saving was in addition to the seven per cent saving resulting from the Vietnam drawdown. Thus, DoD petroleum usage was expected to decrease by 14 per cent. The DoD conservation effort was particularly important from the Federal Government standpoint since DoD consumes nearly 85 per cent of all the energy used by Federal agencies.

To accomplish the President's goals, the Federal Government has taken significant steps to develop an administrative capability to deal with energy policy issues. Initial efforts to form an energy policy body were made as early as the spring 1973, but not until the reality of the embargo became apparent was the Federal Energy Office (FEO) created in December of last year. The principal mission and responsibility of the FEO during its first months was to formulate and implement allocation and conservation programs. A more permanent organization, the Federal Energy Administration (FEA) succeeded the FEO in July 1974 and has assumed a major role in both long and short range energy policy and planning. One of the major programs now being considered by the FEA and other Federal agencies is Project Independence, which is intended to reduce dependence on foreign energy sources to a level where supply denials do not threaten the economy and security of the Nation. The FEA has been charged with designing a blue print for this effort which is due to be submitted to the President by November 1974. DoD is actively participating in this planning in areas of its interest through membership in appropriate interagency panels.

Energy Conservation and the DoD

The DoD had projected energy conservation actions of some magnitude long before the imposition of the Arab oil embargo and predating the Federal Conservation Program.

Conservation measures taken during FY 74 enabled DoD to lead the Federal Government in energy savings with a 25 per cent overall reduction in energy consumption. Current energy conservation planning for FY 75 calls for a continuation of conservation programs to effect an overall 15 per cent reduction in energy consumption.

Now, and in the future, the major challenge to DoD will be to carry out its share of the national tasks without impairing the combat readiness of the operational commands. DoD must maintain the momentum of the conservation ethic achieved in FY 74 while striking an appropriate balance between conservation and readiness goals. Energy conservation must continue to be a way of life for the military forces. The management of energy resources is just as important to military commanders as management of all other resources. The Department of Defense has already established leadership in the conservation of energy. The challenge is to maintain that lead.

DoD Sponsored Seminars Stress Energy Conservation

In implementing the Secretary of Defense directive to maintain the momentum which has been developed in moving toward greater efficiency in the management and consumption of energy, the Assistant Secretary of Defense (Installations and Logistics) conducted energy conservation seminars at Los Angeles, California, on October 10–11 and at Hampton, Virginia, on October 15–16. These seminars were designed to improve efficiency in the management and consumption of energy within the DoD and to facilitate the transfusion of energy conservation experience among the Services and DoD contractors.

The Honorable Arthur I. Mendolia, ASD (I&L), addressed both seminars and presented energy conservation awards to the Services. Seminar attendance included flag and general officers representing the Unified and Specified Commands, Fleet/Type commanders, numbered Army and Air Force Divisions as well as the local installation commanders, Reserve and Guard commanders. Government-Owned-Contractor Operated (GOCO) and Contractor Owned-Contractor Operated (COCO) representatives also attended.

How Commanders Can Save Defense Energy

Minimize the administrative use of vehicles, ships, aircraft, and support equipment.

Strive to reduce energy consumption when operating mission equipment.

Within budgetary constraints, retrofit facilities for greater energy efficiency.

Maintain energy conservation task forces, committees, advisory groups, or officers at levels of command down to battalion, ship, and squadron, with direct access to the commander.

Minimize flight and weapons demonstrations to those essential for training and recruiting purposes. Energy-efficient equipment should be utilized whenever possible.

Buy compact/subcompact commercial sedans and station wagons.

Encourage employee suggestions through incentive awards.

Encourage the voluntary aspects of carpooling with the assignment of preferred parking to carpools.

Conduct periodic orientation and training seminars to exchange information on lessons learned as well as successful practices.

COMMANDERS DIGEST

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Incorporate energy conservation into troop training and information programs.

Maintain a strong in-house information program fostering the conservation ethic.

Keep large-scale energy-intensive exercises to the minimum level required to maintain readiness and include an energy analysis as part of the planning process.

Consider energy consumption as a factor in the decision process during the design, development, and construction of new facilities and equipment. Prepare energy impact statements for projects costing more than $1,000,000.

Maintain the 55-mph speed limit for Government vehicles where safety and mission permit.

Maintain heating and cooling temperatures at 65° to 68°F and 78° to 80°F, respectively.

Reduce the fuel consumption of DoD- and GSA-owned administrative-type vehicles by 15 per cent from FY73 levels. Mission-essential users, such as recruiting, are exempt.

Exercise control over TDY travel to maximize other means of communication such as tele-telephonic communications and multipurpose staff visits.

Continue to assign goals and monitor performance using the DEIS.

Include energy conservation as a special topic for Inspector General and command inspection teams.

Provide for conservation of energy conservation performance ratings into existing Officer and Enlisted evaluation systems in order to promote continued interest and strengthen the conservation ethic.

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